

Pamela Booth FRPS – 1957

# Demetrius Comino OBE a life and legacy of achievement

Anthony Darbyshire Eric Duckworth

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in celebration of the 40<sup>th</sup> anniversary of the Comino Foundation

Anthony Darbyshire Eric Duckworth

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#### **Foreward**

Although my father was born a Greek Australian, he cared deeply about the UK where he completed his education and then worked and lived all his adult life.

He established the Comino Foundation because of two firmly held convictions. As an industrialist he strongly believed in the importance of manufacturing as a source of wealth creation. As an entrepreneur he also knew that his vision of a prosperous society depended on people's potential for achievement and the need to offer them support and encouragement to gain the confidence and skills to take charge of their own lives.

Comino Trustees and Fellows have always tried to reain true to the spirit of what my father intended – sentences often include: 'Dimitri, Mr Comino, My Dad...' and continue 'always believed, thought, felt, would have said....' – though he might on occasion have been (pleasantly) surprised by some of the ways of working we have explored. And, even though my father had an ambitious vision for the Foundation he established, I sometimes wonder if he expected it would achieve so much so quickly.

I know that the Foundation – often starting on a very small scale by getting a few people together for a discussion – has been involved in many projects and initiatives and has influenced a wide range of issues. Despite my own involvement as a Trustee, I still found it fascinating to read the story of the interlinked tapestry of events, initiatives, new organisations, involvements and other outcomes, and hope it will inspire our work for the next 40 years.

I feel very proud of my father and the Foundation he established, and am glad that I have been able to make my own contribution to its work.

Anna Comino-James

# Acknowledgements

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#### **Introduction**

Demetrius Comino\*, the son of a Greek oyster merchant, came from Australia to study engineering at University College, London in 1920. After graduation Dimitri, as he was usually known, was an apprentice in a substantial engineering firm but he became frustrated by large company practice and started his own business, Krisson Printing Ltd. He quickly established a thriving enterprise, and his enthusiasm for training and motivating his young staff made Krisson an exciting and demanding place in which to work.

During the Second World War he decided his future lay in manufacturing a profitable product with high volume of turnover and he refined his invention of a slotted angle construction system which he called Dexion. Manufacturing started in 1947 and Dexion's versatility in making shelving, work benches, cupboards, exhibition stands and storage racking became progressively apparent. By the end of 1949 the Dexion company was well established and grew rapidly with extensive overseas sales; it became a public company in 1968.

Dimitri established the Comino Foundation in 1971 for the advancement and development of education, with its objects later extended so it could also focus on the anti-industrial culture of the day and the decline of UK manufacturing. The Foundation also developed Dimitri's process for successful achievement, which became known as GRASP (Getting Results And Solving Problems), and a number of Comino Centres were established to deploy its application in the context of education. The ongoing work of these Comino Centres has been maintained over the years and the Foundation has provided funding for numerous additional education projects, many of which have been associated with the development of opportunity for young people.

Dimitri retired as Dexion Chairman in 1974 and died in 1988. Although the original Dexion company no longer exists some of its subsidiaries continue to flourish. The Comino Foundation, Dimitri's main legacy, continues to promote his commitment to ensuring that people in the UK live more fulfilled lives in a prosperous and responsible society.

\* Comino: the stress is on the first syllable which is pronounced to rhyme with 'domino'.

# Origins and education

Demetrius John Comino was born on 4 September 1902 to Greek parents in Sydney, Australia. Like many who have helped to transform British society, he was not English either by descent or by birth.

His father, Ioannis (John) Comninos, was born in 1858 into a farming family in the village of Perlegianika on the Greek island of Kythira in the Ionian Archipelago. Athanasius, John's elder brother by some fourteen years, arrived in Sydney, Australia,

in 1873 – probably as a crew member on a sailing ship from New Zealand – and in 1884 he leased two thousand yards of foreshore to develop an oyster fishing business on the Evans River some way to the North of Sydney; in that same year he paid for John, then 26, to come from Piraeus. When Athanasius died on 30 December 1897, having reached a prominent position in the oyster fishing industry, John inherited his brother's title of 'Oyster King' and applied formidable expertise to develop the oyster business. The Comninos family in Sydney changed their surname to Comino to enable them to fit more easily into life in Australia and eventually, because of the family's standing in the community, Greeks in Sydney were often referred to as 'Cominos'.

On 6 September 1901 John Comino married Anna Phocas, daughter of Seraphim Phocas the Greek Orthodox priest who performed the marriage ceremony. John died on 21 June 1919 and was survived by Anna and their four sons. Demetrius, the eldest, was named in Greek tradition after his paternal grandfather. The others were Athanasius born in 1905, Nicholas in 1909, and Constantine in 1910.

Demetrius Comino, or Dimitri as he was known to most people throughout his life, was brought up in an entrepreneurial atmosphere in which the attitudes of striving to get on and become successful were instilled in him at a young age. In his early years he exhibited many of the characteristics which he retained during all his 86 years. A restless inventiveness was one; another was his meticulous attention to detail. He rarely constructed anything until he was satisfied with its design on paper. Things that he built were always subject to continuous improvement which he often thought through in handwritten notes before testing in reality.

Having begun his education in local schools, Dimitri transferred to Sydney Grammar School because his mother felt he needed a more demanding academic environment. This move, at the relatively late age of 15, was a great culture shock to Dimitri, as often occurs when a more practically inclined student is transferred to secondary education which is more academically orientated. Held back by some teenage ailments plus a bout of diphtheria, he sank to the middle of the class and was beginning to reconcile himself to this class position when, in December of that year, an event occurred which affected his whole life.

As he wrote: 'I very rarely missed lessons but on one occasion I had such a severe cold it was quite impossible for me to go to school. On my return I discovered the class had started a new section in mathematics on which we would be tested the following day. I was panic stricken since I had not the faintest idea what it was all about. So I did something that it had never occurred to me to do before. I took my maths book home, read all it had to say on the subject and tried some exercises. I soon got stuck but re-read the material and tried again. Eventually I found I was making progress, so I persisted and succeeded in finishing all the exercises in the section. The next day to my great surprise I came out top in the examination.'

This showed him what he could achieve if he really tried. The raising of his self-esteem through the self-help he had applied not only gave Dimitri the motive

power that he used subsequently in his commercial life, but also his belief that others could be equally successful if only they could find the motivation.

After John Comino's death Anna, his widow, wished to return to her roots in Rhodes. She naturally waited until Dimitri, her eldest son who she now regarded as brilliant, had completed his school education and would be able to proceed to a Greek University. However, since English was Dimitri's first language and engineering was his particular interest, he applied for an electrical engineering course at University College, London, where he passed the necessary entrance examination and was admitted in October 1921.

In the final examinations in 1924 Dimitri was awarded the Electrical Engineering Diploma with Distinction and a First Class Honours BSc (Eng). He then served a three-year student apprenticeship with British Thompson Houston (BTH) at Rugby in order to complete his professional education as an engineer.

#### Krisson – Dimitri's first business

Young people need to be challenged, and they welcome responsibility; they want to use the knowledge they have gained so painstakingly at university and wish to release the energies constrained by the long years of education. In the 1920s, however, major British engineering companies like BTH were not renowned for using their young engineers effectively and at BTH little of this was offered to Dimitri who was used as a progress chaser. This was a well-established job in British manufacturing companies until competitive pressures and the example of the Japanese 'just-in-time' philosophies of the 1980s finally forced managers to have a more disciplined approach to manufacturing processes. The management inefficiency revealed by his job frustrated Dimitri who repeatedly spent time persuading foreman on the shop-floor to schedule and carry out tasks which should already have been undertaken. Furthermore, when put in charge of projects to introduce new equipment, Dimitri found the inflexibility of trade union practices a severe handicap to doing things in a new and more efficient way. This influenced his attitude to organised labour and, having become disillusioned with the complacent practices and the internal politics of large engineering organisations, he determined to start his own company.

Dimitri returned to London in July 1927 where one of his mother's new friends from the Greek and Turkish expatriate community around Charing Cross Road was making cigarettes and suggested that Dimitri could buy a small printing press and produce the necessary wrappers and labels more cheaply than the existing supplier. His mother bought a printing machine, and its installation behind the tobacconist's shop enabled Dimitri to establish a printing business which provided him with a variety of work with frequent problem solving involving physics and chemistry both of which he enjoyed. He took to printing very swiftly and discovered that he had a flair for selling; his enthusiasm ensured that the capacity of the small press was quickly achieved with the business beginning to expand at about 30% a year.

Dimitri then heard that Forbes J Taylor, an established printing firm nearby, was in some financial difficulty. Agreeing that it would be a good business opportunity for Dimitri, his mother realised that this could also benefit Athanasius and she bought a partnership for her sons who settled into the business in its 200 square foot premises near Oxford Circus. Its location was advantageous because it was at the centre of London's West End rag trade which needed price tickets in abundance, invoices, statements, and advertising leaflets - all the printing minutiae of the clothing industry – and needed them quickly and at low cost. Forbes Taylor managed the marketing and promotion, Dimitri (known within the company as DC), the printing and Athanasius (known as AC) the accounts. Inevitably Dimitri soon saw opportunities for expansion but, being unable to enthuse Forbes Taylor, he bought the remaining share of the partnership in late 1928 and rechristened the company 'Krisson' from the Ancient Greek word meaning 'gold' or 'valuable'.

The 1929 stock market crash and recession restricted expansion, but by 1932 the economy was beginning to recover. By then Krisson Printing Ltd had become a general printer of business stationery, though still mainly for the local rag trade, with a sales territory extending from Park Lane in the West to Tottenham Court Road in the East. Dimitri knew he had to build up a team of capable young men before he could take on more work and his most successful recruit early that year was Fred Reilly, a 21 year old who had just completed his apprenticeship as a compositor. Fred's rapport with Dimitri was instant and as a keen Scout leader he loved to develop talent. He was also more practically minded than Dimitri and, with a good grounding in printing practice, responded to the many ideas that always flowed from Dimitri and made them work. This partnership not only helped establish Krisson as a leading printing firm but also fertilized the early development of Dexion.

Two other outstanding young people recruited at this time were Norman Bailey and George Thompson. Norman was typical of Dimitri's young cohort, having been very good at English at school and ambitious to succeed in journalism. He initially started in Krisson as a 16 year old proof reader but, under Dimitri's guidance, progressed in a few years to become Office Manager. He later succeeded Dimitri as Chairman of Dexion International, was a founder Trustee of the Comino Foundation and eventually became its Chairman. George, who joined Krisson at 14, also eventually became a Dexion Director – with responsibility for the Manufacturing Division – and a founder Trustee of the Foundation.

Building a business always generates problems, many of which stem from personal relationships. While Fred Reilly was developing a increasingly close affinity with Dimitri and nurturing the growing number of school leavers who were now being employed the recession had forced Dimitri to concentrate on sales and he decided to employ a trained pressman as Works Manager. Unfortunately, the new man's style of management created tensions between himself and Fred. In attempting to solve this problem Dimitri acquired a further 4,000 square foot basement nearby so that

production, and its management, could be split from sales. Eventually, however, the tension in production management became so great that in 1935 it ended in the departure of the Works Manager.

Dimitri was a devotee of Frederick Taylor and Frank Gilbreth, the US workstudy gurus, and he sought continuous improvement as promoted by Alexander Deming. He involved everyone in innovation, making the company great fun in which to work with all employees feeling part of the action however humble their occupation; they were all proud to call themselves Krissonites and everyone wanted to contribute new ideas. Training to develop skills was continuous and there were evening discussion sessions on current affairs resulting in exciting meetings when members of the Fascist and Communist as well as the Conservative, Labour and Liberal parties were all invited to present their case - this included one rowdy meeting with Sir Oswald Mosley during the height of the Spanish Civil War. These meetings were so popular that friends and relatives often requested invitations to attend.

Dimitri had come to understand that while he must run a business he should not be dominated by its needs and in September 1935, when the company was running smoothly, he went to join his mother in Rhodes. Anna Comino had resolved that it was time for her son, now a successful businessman of 33, to marry and she had had her eye for some time on Katina Georgiadi, ten years Dimitri's junior, a beautiful local girl from a well-respected family.

Arranged marriages were still the norm in Greece and some years earlier Anna had been asked to act as intermediary between Katina and another young man. She did her duty by putting this proposal to Katina's mother whilst at the same time urging her to turn it down as she wanted Katina for her own eldest son, and the message went back that Katina's family felt she was too young to get married. Anna was sure Dimitri would get on well with Katina, whom he had met briefly at social occasions in Rhodes. This proved true and within a week of him seeing her again they were engaged and the wedding took place on 22 September at Profitis Ilias Church near the village of Salacos in Rhodes. After a honeymoon in Switzerland the couple arrived in England to the astonishment of Dimitri's staff who had not expected him to come back as a married man.

#### The dawn of Dexion

Dimitri registered a new company – Dexion Ltd - on 21 October 1937, 'Dexion' being the Ancient Greek word for 'right', in the sense of perfection as well as of direction. While printing suited his penchant for problem solving, he wanted a simpler and more certain way of making money but with the same sense of challenge and excitement he had found in Krisson. Under the Dexion name he began to market some of the products he had developed and patented to improve the efficiency of the printing process.

Initially, Dimitri made a Dexion Gauge for checking the squareness and register of a printer's forme. He designed and produced trolleys, chutes and a number of practical tools to save time and space in the letterpress industry, for example interlocking frames to hold print in place inside the chase. A Dexion Chart was designed to hang over a compositor's desk as a constant reminder of the simple but methodical tasks being recommended to improve performance. All these products were sold by direct mail but little money was made from these sales because the potential market was small and conservative; following the Second World War there was no purpose in reviving them because of other improvements in the printing trade. None of these items, in any case, satisfied the criteria which Dimitri had set himself. He wanted to design a product, divorced from the printing process, which he felt could justify his training as an engineer.

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Due to his obsession for efficiency he had been concerned about the lack of versatility of the wooden shelving used in great quantities for storing paper and other consumables for the printing process. Timber was also wasted when it had to be dismantled and reused. To solve these problems he conceived the idea of steel shelving which could readily be assembled, dismantled and then reassembled again. By 1939 he had developed an angled section made of steel with slots cut down one side and a long groove cut down the other. Accles & Pollock Ltd in Birmingham were commissioned to make an initial batch of one ton which was delivered in late August, a week before the declaration of the Second World War on 3 September 1939. Dimitri managed over the next few months to sell most of this angled section to the local stores of Lillywhites, John Lewis and Selfridges, an experience which helped after the war.

# Wartime interruption and a change of direction

The first year of the Second World War proved very difficult for Dimitri. Almost everyone in London expected an immediate invasion, a fear emphasised by the sounding of the air raid sirens within an hour of the Prime Minister's initial address to the nation. Many Krisson employees volunteered for the services or went to work for companies directly involved in arms production, and the West End businesses on which Krisson relied closed down for two weeks and income ceased. Some confidence returned and printing orders resumed when stalemate seemed to be established on the Franco-German border. When the war really began with the fall of France, however, paper became rationed and the Krisson establishment shrank still further.

To keep his business alive, and being left with mainly women who were skilled in bindery and despatch, Dimitri retrained them to operate the machines. Meanwhile, with his engineering background and managerial status, he was offered a position as a manager in an aircraft factory by the Ministry of Aircraft Production. Because of his determination never to work for anyone else he refused and, because he was an Australian citizen, this employment could not be enforced. Instead he decided to help

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the war effort by installing a lathe to make aircraft parts. Gradually the printing machines were mothballed and more lathes installed but enough capacity was retained to keep a small printing business in operation. The Ministry of Labour allocated him lathes, drills, milling machines and other machine tools as well as many female workers which offered Dimitri a great opportunity as he could increase their productivity by training them in the Krisson tradition.

Dimitri persevered with his desire to create a business that was financially more rewarding than printing and set himself the objective of producing an innovative product which would sell by the million. With some of the angled steel lengths that had been made before the war he had made various structures but these proved to lack rigidity. Fiddling one day with two of the larger angle brackets, each with a 6 inch flange, he suddenly realised that by fitting one into the other and bolting them together through carefully positioned holes he could produce a very rigid joint. This was the breakthrough he needed because he now realised that these slotted angle sections could be developed into a much simpler constructional system than the original angled section. The new design would be more versatile, economical, adjustable, re-usable and transportable. When Dexion was eventually manufactured the secret of his invention was consistently explained in the sales brochures.



Dimitri's invention - The secret of Dexion

In the evenings and while on night time fire-watch duty during the war he made many drawings of the kinds of structures which could be produced from the slotted angle sections and how their component parts could be joined together. At home he mulled his designs over with his wife, Katina. She, however, naturally thought of him as a printer who would return to printing once peace was declared. Seeing him poring over his diagrams one evening she asked 'Do you really think you'll look at all those drawings after the war?'

During the war Dimitri had virtually designed the whole process for manufacturing Dexion, but when the war ended his first task was to re-establish

Krisson. Fortunately all the old team came back, except for one who had been killed in the invasion of France, and Dimitri began to leave day to day running to the senior staff at Krisson so he could devote himself more and more to the Dexion Slotted Angle concept. He examined many combinations and sizes of slots and holes and their positions, realising that all these factors would have to be worked out very carefully to meet the necessary conditions of strength, clearances, positive fixing, and versatility.

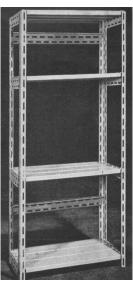
Several Dexion prototypes were made, both in miniature and full size, to help sell the concept and by 1946 he was ready to manufacture and bought a second-hand Henry & Wright standard die press. In true Dimitri style he had seen that he could discard the punched pieces which would have ended up as the manufactured item, whilst retaining, as the Dexion strip, the part that was normally thrown away. He also adapted the press so that the steel strip could be continuously fed into it and painted.

### Establishing Dexion production and company growth

The war had provided Dimitri with the opportunity to accumulate some funds from the manufacture of aircraft parts as these were paid for on a cost plus arrangement. He supplemented his savings towards the end of the war by buying and refurbishing war-damaged printing machines for which he found a ready and profitable market when printing came back to life. To begin manufacturing Dexion however, he still needed to borrow £7,000 from his mother and brother Athanasius to match the £7,000 he was able to borrow from the branch of the Midland Bank which held the Krisson account. This finance enabled Dexion production facilities to be established in a 3,500 square foot garage at Chingford, N E London. Production commenced in May 1947 and the first day's output was 600 feet with a sales value of £17 and 5 shillings.

Despite Dimitri's flair at selling, only 20,000 feet of Dexion was sold in 1947 and only 20,000 feet a week during 1948; this was less than a tenth of the small factory's capacity.







Steps, a simple rack, machine guards and an access walkway showing Dexion versatility

Money was tight and the cash payment requested with each order tended to deter customers. Sales and production increased to 50,000 feet a week in 1949, however, and by the end of that year turnover had reached £500,000 - a twelve-fold increase on the previous year. To support the sales campaign Dexion News was introduced to show the versatility of Dexion and the innovative ways in which it could be used to save space and save money.

Dexion began to be used in exhibitions, and imaginative sales campaigns were so successful that in 1950 output leapt to 125,000 feet weekly. Exhibition designers eagerly seized on Dexion, as did show grounds, and the company's growing sales team made extensive use of press photographs of royalty on Dexion-supported stands at official openings or sheltering from rain under Dexion-constructed awnings. Its use then expanded to hospitals, agriculture and forestry. Cash flow improved and from his profit margin of 25% Dimitri was able to repay the £7,000 bank loan in 1950 as well as opening a new factory in Enfield.

The success of Dexion was not lost on others. Unfortunately the prior existence of Meccano had prevented a generic patent so the Dexion patents were restricted to the slot and hole configurations. This made it possible for many other companies to enter the market with similar designs using different hole patterns and thicknesses of metal strip. There were about a dozen such companies in the UK – one of which was set up by an ex-employee of Dexion who had been involved in production – plus 170 in Italy alone which saturated Dexion's potential market in that country.

Nevertheless, despite the large number of imitators in different countries, by 1956 turnover was more than £2 million with 700 employees, 200 of whom were outside the UK in factories in Belgium, Germany and Canada, and the Dexion company had reached what Dimitri called its adolescence. There were also licensees in other countries and over the next few years the company showed steady growth in turnover from £2.5 million in 1958 to £5.7 million in 1962. Growth, however, brought its problems with too much money being spent on sales promotion and steel stock.

In 1963 cash flow difficulties arose. The merchant bankers, Hambros, were brought in to arrange an injection of £250,000 from a finance corporation who were allocated 11% of the share capital, which was repaid when the company went public in 1968. A new emphasis on tight planning, budgeting and control was also instituted because the company could no longer afford the enthusiastic amateur approach which had been so successful when it was smaller. The time for 'everyone having a field marshal's baton' had gone. Thus began the process of weaning the Dexion company away from Dimitri's day to day management and, as part of this process, Norman Bailey was appointed Dexion's Managing Director in 1964.

Meanwhile, in August 1953 a series of violent earthquakes rocked the Ionian Islands in Greece. At Dimitri's instigation, the company donated 20,000 feet of Dexion for new housing with a prototype house being designed within three weeks

and construction starting two weeks later. Called 'Operation Ulysses', the story was broadcast worldwide and even made an article in *Time* Magazine. Then, despite Dexion's poor financial position in 1963, the company made another generous donation following the Skopje earthquake. As with Operation Ulysses, Dexion equipped and built two complete villages, one of which was called Dexiongrad. This action and the high reputation of Dexion resulted in Dimitri being appointed an OBE in 1963 for services to industry.

# Going public and the sale of Dimitri's most innovative business

The mid 1960s saw rapid expansion with sales exceeding £10 million and a record profit in 1966 of £730,000. In 1967 the Board of Directors decided that Dexion should become a public company for reasons similar to those made by many large private companies at that time: the restrictions imposed on private companies by the 1965 Finance Act, the capital-raising flexibility when shares have a stock market quotation, and the potential impact of death duties on the company. The second half of 1967 was a time of great activity in new stock market issues, with rising price levels on the London Stock Exchange. The offer of Dexion shares, one of the three largest issues in 1968, was heavily over-subscribed due to the 1968 results which showed a 40% increase in world sales to £14 million and a new record profit of £1.133 million. This 1968 performance was enhanced by the devaluation of the £ in November 1967 and also justified Dimitri's policy of continuous high investment in manufacturing.

In 1969 turnover soared by a further 40% to nearly £21 million, with profits rising to £1.5 million. The company had diversified and broadened its product range and an output of more than one million feet per week of Dexion slotted angle now provided less than half the UK income, with the sales force increasingly focussed on selling products for use in warehousing and distribution. As part of the diversification other companies were acquired including some which manufactured cranes and warehouse equipment. These acquisitions, however, were not successful as the executives in Dexion were too inexperienced to manage and co-ordinate the advanced engineering required.

In addition to the earlier ill-judged diversification, 1971 and 1972 were difficult trading years and the business came to the attention of Interlake Inc, based in Chicago, a diversified steel company ten times the size of Dexion. In August 1973 Interlake made an offer to purchase the Dexion share capital but the offer was refused. However 1974 brought an atmosphere of considerable industrial gloom. The miners' strike, together with the three-day working week imposed to preserve electricity, brought down the Heath Conservative Government and all shares plummeted in early 1974 from an all-time high the year before. The stock market had not taken kindly to Dexion's troubles despite good 1973 results and Dexion shares suffered along with the rest. Money for vital future investment was hard to find, the industrial logic of a

corporate sale to Interlake was accepted and the sale took place in July 1974. The price paid at £9.4 million was keen, with the company being valued at £4 million less than its flotation price in 1968.

Dimitri retired as Chairman of Dexion in 1974 when he became President but he remained on the Board until 1978. He was succeeded as Chairman by Norman Bailey until he also retired in 1976 and the future of Dimitri's most innovative business was left in other hands.



Norman Bailey at his retirement dinner November 1976

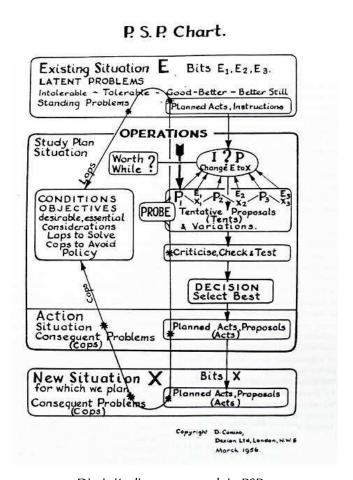
Under Interlake Dexion flourished for 20 years with sales reaching £200 million in the mid 1990s. However, due to their need to re-organise, Interlake sold Dexion in 1995 with ownership eventually passing to the Norway-based Constructor Group who already owned Dexion Gmbh¹, previously Dexion's German subsidiary. Dexion manufacture in the UK ceased in 2003 but Dexion Gmbh continued to expand and by 2010 had achieved a turnover across thirty European countries of €100 million. Dexion Gmbh continues to manufacture Dexion and markets it as 'Intelligent Warehouse Solutions' with one of its sales offices being Dexion Comino Ltd in Swindon. Dexion (Australian) Pty Ltd², which had become a separate company, continued to trade successfully and by 2010 had become the market leader in the Far East.

# Getting Results And Solving Problems (GRASP)

Since his early years Dimitri had a great passion for solving problems, especially problems that occur in real life which he always saw as opportunities. He was never attracted to conundrums or crosswords or forms of problem more accurately described

as puzzles - all of which have defined and closed end solutions. He always preferred problems which offered the prospect of many potential solutions although only one or two might prove to be optimal. Not only did he think through and solve problems that affected his own life, he was also concerned to analyse and describe the process of problem solving so others could use it and thus be more consistently effective themselves. Although the acronyms he developed did not satisfy him because they seemed too static for what he knew was a dynamic process, the organisational strains of a growing company in 1952 spurred him to use acronyms as a means of reminding those around him of what he was constantly seeking to achieve in the working environment. Perhaps the best known was ITGB – Intolerable, Tolerable, Good, Better - and the attitude of mind he consistently tried to encourage others to acquire was the dissatisfaction he always felt with any current situation. No matter how good any outcome was, he inevitably wanted it to be improved which made him exasperating to work for. Staff would show him work over which they had sweated long and hard to achieve perfection and he would say 'Let's do better next time'.

He was constantly searching for a generic problem solving procedure and produced many diagrammatic forms of increasing complexity which he knew instinctively were too convoluted. This did not stop him defining his first Problem Solving Procedure, known as PSP, in March 1956.



Dimitri's diagram to explain PSP

In 1971 Dimitri began to write a book on problem solving which he was still working on when he died in 1988. It remained unfinished because he always felt he could improve on what he had written. He did, though, come close to achieving his objective by defining the essential ingredients for problem solving and achievement - PACRA (Purpose-Alternatives-Criteria-Resources-Action), which finally evolved into what became the GRASP process (Getting Results And Solving Problems). This latter acronym, however, might be better defined as Getting Results and Seizing Potential because it became most effective in helping people to achieve their full potential.

The elements of the GRASP process are

- Define your purpose in terms of what you want to achieve, not what you want to do (these are often very different). When defining purpose keep asking the question 'Why?' each time you think you know what your purpose is.
- Imagine in detail how it will be when you have succeeded and use this picture of success to establish the criteria by which you will know if you have succeeded.
- Examine alternative means by which the desired result might be achieved and never allow yourself to think that there is only one way to succeed.
- Choose what seems to be the best option and make a plan.
- Carry through your chosen plan.
- Repeat the process to see if you can do better or have redefined your purpose, which often happens.
- Review the process at each stage.

This process sounds simple and to some extent obvious, but is difficult to carry out in a disciplined way until it becomes an integral part of everyday thinking.

#### The Comino Foundation

Following the public offering of Dexion shares in 1968, shareholders in the company began to receive substantial dividend income for the first time which, as unearned income, was subject to a very high level of taxation. Meanwhile, Dimitri had been keen to promote and disseminate those ideas which he had developed and employed successfully in the company over the years. His professional advisors suggested that he could establish a charitable trust to further this aim and, if this trust had the benefit of some of the dividend income, the taxation levied on those dividends could be reclaimed to further the charitable work of the trust.

By the age of 69 Dimitri had increasingly relinquished the day to day management of Dexion and Krisson and was now devoting more effort to refining his method of solving problems and achieving results. On 1 November 1971 he established the Comino Foundation, as a charity with traditional educational objects,

to pursue the promotion of GRASP and also to address the concern he felt about attitudes to manufacturing industry in the UK and its consequent decline. The Founder Trustees were Norman Bailey and George Thompson, both Directors of Dexion Ltd which was soon to become Dexion Comino International, Leonard Gost, Dexion's solicitor, and Reg Wheeler, Dexion's accountant; Norman was Chairman of the Trustees. The financial arrangements for the Foundation to begin to operate were eventually in place in early 1974 and the first grants were made in January 1975.

A major activity in the early days of the Foundation was a joint initiative between Dimitri and Edward de Bono<sup>3</sup> who had become well known and respected for his approach to lateral thinking and his attempt to establish a 'royal society of thinking'. Starting in 1976, de Bono organised twenty discussion dinners with distinguished guests from many walks of life. Although these were stimulating events with many diverse points of view being discussed, the Trustees felt that little progress for change was being made and in 1980 the dinners were discontinued. Dimitri kept the notes he made at these discussions however, which helped him to refine his own thinking on problem solving.

### Attitudes to Industry and a Comino Fellowship

A much longer-term project began as a result of Dimitri's attendance at a 1976 consultation at St George's House<sup>4</sup>. This venue within Windsor Castle had been made available by the Duke of Edinburgh and Robin Woods, the then Dean of Windsor, as a retreat where weekend consultations could take place to examine issues of major national importance.





St George's House, Windsor Castle

A new Director of Studies was required to lead the initiative at St George's House and Kenneth Adams, a Director of Hays plc and formerly a Major in the Royal

Army Service Corps, was appointed. Kenneth developed a series of 30 consultations from 1969 to 1974 with themes that included business ethics, relations between people at work and industrial democracy. They were attended by leading figures in public life, industry, trade unions, politics and the Church.

The response to the outcomes of these consultations was varied. Due to the political turmoil of the period little impact was made on politicians but the response from business leaders was vigorous and specific. The Confederation of British Industry (CBI) published a statement on the stakeholder principle in the governance of companies, the British Institute of Management (BIM) published a Code of Best Practice, and the Institute of Directors (IOD) re-wrote 'Standard Boardroom Practice'. The new version of this was published as 'Guidelines for Directors' with other leading organisations making a contribution to changing practice.

It had become clear to Kenneth Adams, however, that many of the participants from Industry believed that a more fundamental problem needed to be addressed. The acceleration in Britain's post war industrial decline had become acute, with the 1960s being seen as a period of false prosperity. This stimulated Kenneth to write a paper to set the scene for a consultation in 1976 with the theme 'When a society fails to believe in the underlying virtue of the activity on which its whole livelihood rests then it will be unable to take a positive and creative attitude to the forward movement of that society'.

Dimitri attended this consultation which discussed the decline of British industrial power, a subject very dear to his heart, and he became determined to place the Comino Foundation at the heart of work in changing attitudes to industry. He discussed with Kenneth how this work could be progressed, which resulted in Kenneth reducing his role as Director of Studies at St George's House and a Comino Fellowship being established with funding from the Foundation. For this latter to happen, the Foundation had to modify its Trust Deed by extending the education objectives to include 'the education of the public in the principles of economics and finance and in their application to industry, commerce and Government'.

Although Dimitri had hoped that the Comino Fellowship would enable Kenneth to secure a change in attitudes that would contribute to the survival of Britain as an industrial nation, as an educational charity the work of the Foundation had to concentrate on researching the reasons for industrial decline and then educating people in the research outcomes and what needed to be done if change was to be brought about. This work of the Fellowship gave Dimitri great personal satisfaction and a sense of fulfilment after his retirement from Dexion; it also gave the Foundation's work a clearer direction which it had previously lacked.

Kenneth decided that the first task was to research the prime causes of the antiindustrial culture so that these could be explored to see which ones needed to be systematically addressed. His initial consultations concentrated on this analysis and they confirmed that the hostile culture had five themes:

- 1) ignorance of the way in which the nation earns its living;
- 2) an educational style which elevates theoretical knowledge over its practical application;
- 3) disenchantment with some of the ways in which industry operates;
- 4) disappointment with British industrial performance;
- 5) a moral ambivalence, sustained by the Church, towards wealth creation through industry and commerce.

In these discussions the sources in UK society of negative attitudes to industry were identified as being politicians and others in public life, the civil service, the media, education, parents (especially mothers), industry itself and the Church. Representatives of all these groups were involved between 1977 and 1979 in nineteen consultations. The anti-industrial culture was explored from many directions with groups that were carefully chosen to debate specific themes.

As a direct result of the consultations numerous industry/education links were forged. One of the most important was the establishment of the Industry/ Education Unit in the Department of Trade and Industry (DTI) with Dr Eric Bates seconded from ICI as its Head. The co-operation and support of industry was clearly important and the CBI established Understanding British Industry to promote liaison between industry and secondary schools. Politicians were drawn into the fifth consultation in February 1977 which stimulated the formation of the Industry and Parliament Trust<sup>5</sup> to provide industrial secondments for MPs. This Trust still remains a strong institution. It has provided many MPs with some knowledge of modern industry so that the House of Commons, in which there are very few MPs with an industrial background, has some understanding of industrial practice.

In 1979 Kenneth wrote a review of these consultations under the title 'Attitudes to Industry in Britain'. His services to St George's House, both as Director of Studies and as Comino Fellow, were recognised by his appointment as a Companion of the Victorian Order, an appointment which is given on a personal basis by the Queen.

# Partnership with the RSA and Industry Year

The seventeenth consultation of this series in May 1979 was important because it reviewed the BIM's report on 'Industry, Education and Management'. It also brought into focus the Education for Capability project initiated by the Royal Society for the Encouragement of Arts, Manufactures and Commerce (RSA)<sup>6</sup>, which had been founded in 1754 as the industrial revolution gathered momentum. The RSA's primary objective was to 'embolden enterprise' because its founders believed that industry could be under attack as inhumane but they also resolved to emphasise and maintain the aesthetic and artistic aspects of craftsmanship. Over time the Society became commonly known by its shortened title, the Royal Society of Arts, with its full title now

only being used where formality is required. In 1978, the Education for Capability project re-engaged leading industrialists with the Society and revived the emphasis on 'the value of practical and co-operative skills'.

In 1979 the Comino Fellowship for Kenneth at St George's House was nearing the end of its three-year period and, although it could have been renewed, Kenneth had realised that the movement to develop and sustain an affirmative culture to industry in the UK required the support of an institution that could be more dedicated to that task. Several institutions were considered and, by common consent, the RSA was selected because it was a well-established, neutral body which had the encouragement of manufacture and commerce written into its title deed. In 1979 the Foundation funded a Comino Foundation Fellowship at the RSA 'to change the cultural attitude to industry from one of lack of interest or dislike to one of concern and esteem'.

A Comino Fellowship Committee was established at the RSA to monitor the work. Kenneth was very active and kept the committee busy with a stream of lectures, consultations and articles; he also proposed a number of initiatives for RSA sponsorship. The consultations at Windsor continued in parallel and progress was made with the media, where one improvement was the introduction by the BBC of more programmes on industrial topics. The magnitude of the task to change attitudes that was still concerning Kenneth, Dimitri and their colleagues was emphasised by the publication in 1981 of 'English Culture and the Decline of the Industrial Spirit 1850-1980'<sup>7</sup> by the American academic, Martin Wiener. This book confirmed the opinions formed in 1975 and supported the need for further action.

In 1983 Kenneth used the consultations, together with the wide network he had established, to crystallize his vision of a year devoted to technology in the service of man. Eventually named 'Industry Year', this initiative was supported by Norman Tebbit, the Secretary of State for Trade and Industry, plus representatives of industry, education and the media. The Government agreed that Industry Year could be promoted under the umbrella of the RSA who accepted the proposal and appointed Sir Geoffrey Chandler as its Director. Subsequent consultations brought together all the major institutions involved in industry – the CBI, the IoD, the BIM, the TUC and the The RSA's Comino Fellowship Committee became the Industry and RSA itself. Commerce Committee which then established numerous sub groups to co-ordinate media activities with education, universities, the Church, women's organisations and other groups in society. The RSA and the Comino Foundation together provided core funding of £250,000 which persuaded the CBI to raise £1 million and Government Departments to provide a further £3 million.

Industry Year was launched in January 1986 based on thirteen Industry Year regions involving some 300 organisations and 40 secondees from industry, with many high profile events which involved amongst others the Queen, Prince Philip and the Prime Minister. The year brought together many people from industry and their local

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communities and provided useful connections for the formation of the Training and Enterprise Councils in 1990. The most lasting legacy, however, came from the enthusiastic participation of schools. This was subsequently maintained through many industry-related school activities some of which were organised by Understanding British Industry and Understanding Industry, and also through various initiatives including Young Enterprise<sup>8</sup>.

Although the RSA followed up the 1986 campaign for two years with Industry Matters, activity by the RSA for the promotion of industry then almost ceased. In his inaugural Industry Year lecture to the RSA in 1985 Kenneth had hoped that the RSA, as an institution of independence and repute, would be able to provide a focus, a central point of communication and a meeting place for all those engaged in the task of changing attitudes, and that it would ensure continuity of this movement for change until the task had been completed and the cultural attitude to industry permanently changed. He had envisioned the RSA fulfilling the role for industry in the way that Chatham House<sup>9</sup> provides a forum for international issues but, much to the disappointment of both Kenneth and Dimitri, this did not come about.

Kenneth's Comino Fellowship at the RSA terminated in December 1989 and for a time Kenneth and the Foundation worked on tackling one of the most resistant bastions of the anti-industry culture, namely the Church. He continued his work as Industry Fellow of the Comino Foundation by holding a number of consultations which included a focus on morals and ethics in business and the acceptance of the idea that wealth creation is part of God's plan, an idea which became a centre of discussion in many Christian institutions.

The work, initiated by Dimitri, which Kenneth had carried out over many years to change attitudes to industry did not go unrecognised. Kenneth was appointed CBE in the 1989 New Year Honours for services to industry, a citation which he greatly appreciated.

# Problem solving and introducing GRASP into education

Throughout the late 1970s and early 1980s Dimitri and the Foundation devoted considerable time and effort to developing and promoting the use of process in problem solving but at the end of that time Dimitri was still concerned to advance his own theories.

In 1972 he had met Keith Jackson and discovered a common interest because Keith was running courses on problem solving, and also carrying out research into this subject, at the then Henley Administrative Staff College. Keith had propounded the general use of problem solving approaches in his 1975 Teach Yourself book 'The Art of Solving Problems' and Dimitri considered that this wish to encourage more general use of problem solving methodology was a good starting point for promoting the wider use of the GRASP process. The Foundation supported some of Keith's work at Henley before part-funding him for several years as a Professor at the Centre for Education

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Management at the Bulmershe College of Higher Education near Reading, and in 1979 and 1980 he conducted promising experiments with local schools on the motivating effect of the problem solving approach.

Keith's work and its relevance to the Government's new Technical and Vocational Education Initiative (TVEI) were noticed by the Dudley Education Authority who wished to improve education standards in a deprived area. An In Service Education and Training (INSET) TVEI project was established in Dudley 'to enable young people to get results and solve problems at work'. Some financial support for this project was negotiated with the DTI Industry/ Education Unit and, as a result of meetings Dimitri was organizing to discuss problem solving and GRASP with all interested parties, the Foundation agreed a grant for additional funds provided that the use of GRASP was explored.

Led by Ian Cleland, Chief Inspector for the Dudley Education Department's Advisory Service Chief Inspector, and with the active involvement of key head teachers, the project was a great success especially through its emphasis on purpose. Lessons in what became known as 'the Dudley GRASP schools' began with the children not only knowing but also agreeing on what they were going to be taught and why. Criteria were established by which they would know at the end of the lesson whether its objective had been achieved and possible alternative means of achieving the purpose were discussed before the lesson started. Review during and at the end of each lesson enabled both pupils and teacher to know if they were succeeding. This discipline, of course, took time to develop as teachers had to learn how to carry it out within the constraints of an hour's lesson; those who acquired the skills more quickly then became mentors to others.

The emphasis on purpose had a dramatic motivating effect on teachers and children alike. The latter knew why they were at school and why it was important to learn and teachers found themselves challenged as never before. Teachers were not usually expected to define and share with pupils the learning purpose of each lesson and now had to cope with the pace of lessons being driven by pupils eager to learn and eager to meet the targets they had set themselves. The innovative application of the GRASP approach in Dudley was, therefore, new, refreshing and effective.

Dimitri, had made little headway with his efforts to promote the GRASP process (and its previous models) within industry – partly because much of the message seemed similar to other management concepts such as Management by Objectives, the Coverdale approach, and even aspects of Operational Research – so he was thrilled with the way in which GRASP had been accepted in Dudley. He was, however, becoming worried about the direction the problem solving work at Bulmershe College was taking. In his view Keith Jackson did not give sufficient attention to inspiring people to develop their full potential but concentrated instead on reactive problem solving rather than on pro-active achievement. By 1985 the Trustees realised that, while/although the Foundation was giving much support to the St George's House

work on attitudes to industry and also to the RSA's Industry Year, it was not furthering it's Founder's wish to develop young people in the way he had so successfully achieved at Krisson and Dexion. Dimitri, having finally evolved his GRASP approach at least to his own provisional satisfaction, had hoped for a more direct involvement by the Foundation in its dissemination.

Consideration was given to the setting up of a Problem Solving Centre and also the establishment of a Comino Education Fellowship and, with the active participation of Anna Comino-James (now a Trustee) and Eric Bates, several problem solving seminars were held at the Burnham Management Centre to gain experience. The Bulmershe College project was terminated in 1987 and the RSA-Comino Fellowship ceased following conclusion of Industry Year 1986, both of which released funding for further work.

The funding for the Dudley project, which was extended for a further three years in 1986, was the first direct support from the Foundation for problem solving in the education sector, as distinct from the indirect funding previously provided to Keith Jackson. Eric Bates, meanwhile, had become fully committed to the GRASP approach and was encouraging the DTI's Industry/Education Unit to foster its development. With matching funding from the DTI, the Foundation funded a Comino GRASP Centre at Salford University and in May 1987 also funded the Standing Conference on School Science and Technology (SCSST)<sup>10</sup> over three years for a project on problem solving for 5-13 year olds. Kay Sargent, who had been introduced to Dimitri by Keith Jackson, was retained on a part time basis to monitor the three GRASP programmes.

Meanwhile during the early 1980's the Foundation had also become involved in other education initiatives. The Trustees were impressed by the links which the Fulmer Research Institute, a commercial contract research organisation, had formed with education. The Foundation had also provided funding to the National Association for Gifted Children<sup>11</sup> whose work was of particular interest to Dimitri's daughter, Anna Comino-James. These interests and involvements led to three new Trustees being appointed following the death of Reg Wheeler in 1980. Dr Eric Duckworth, the Managing Director of the Fulmer Research Institute, became a Trustee in 1981 with Anna being appointed in 1986 together with Dr Eric Bates, Head of the DTI's Industry/Education unit. Leonard Gost retired as a Trustee in 1986 as he believed five trustees would be sufficient and younger people were needed to take the Foundation forward.

#### A Comino Education Fellow and the GRASP Comino Centres

While in the DTI, Eric Bates had considerably advanced the co-operation between industry and education and greatly extended teachers' understanding of how technology might be of use in the classroom. When he retired in 1987 he was persuaded by Dimitri to accept the post of Education Fellow for the Foundation and to

devote at least three days a week to promoting GRASP. Eric therefore resigned as a Trustee and took over the Dudley project from Keith Jackson.

With the support of Eric and Kay, the development of GRASP in education increased. José Chambers, who had come into contact with Keith Jackson through Bulmershe College, had been researching the use of problem solving approaches in improving the effectiveness of teachers and had presented the outcomes of her work to the Burnham seminars. Eric saw the possibilities of linking this work with the launch of the newly-defined National Curriculum subject, technology. The DTI Education Unit was actively promoting technology as a means of enabling pupils to acquire the habits of enterprise – or 'getting results and solving problems' – and Eric decided to introduce José to David Perry, then Head of Design and Technology at King Alfred's College of Higher Education in Winchester which is now the University of Winchester<sup>12</sup>.

David was leading the re-structuring of this department and developing a range of innovative courses which depended on a clear understanding of the relationship between design and generic problem-solving models such as GRASP. The DTI gave a three-year grant to King Alfred's College, with José designated as DTI Research Fellow, to develop GRASP-like approaches to the training of technology teachers. Later, as Director of the Winchester Comino Centre, José promoted GRASP approaches more broadly through her position as leader of the Industry Teacher Education Liaison project (INDTEL, a CBI Education Foundation project) and her membership of the central management team of the Government–funded project, Enterprise Awareness in Teacher Training.

Meanwhile, in 1988 the SCSST problem solving project with 5-13 year olds began to bear fruit. Much of the work of that body was carried out through local Science and Technology Regional Organisations (SATROs) usually based in Polytechnics. The one in Sheffield, now part of Sheffield Hallam University, proposed a plan to introduce problem solving into the GCSE syllabus. This led to the University's Centre for Science Education (CSE)<sup>13</sup> becoming a GRASP Comino Centre in 1990 with the Head of CSE, Professor Bill Harrison, becoming the Centre Director.

Eric Bates strongly believed that GRASP was not only an excellent process to help people achieve better results, but that by continual application it would remain subconsciously in the mind to be used as a matter of course in everyday thinking. If children acquire the GRASP principles early in life they come to realise that in achieving a particular result there is often a spread of outcomes, some of which may be helpful and others undesirable, some anticipated and others completely unexpected. Furthermore, when they themselves initiate the process, they not only enjoy a sense of responsibility for successful outcomes but also are fully involved in recognising other less desirable ones. This acceptance of personal responsibility at an early age helps children develop a positive and responsible attitude in life generally and discourages them from apportioning blame to others. Eric encouraged the Comino

Centres to use GRASP to help ensure young people accepted personal responsibility, and thus counterbalance the increased emphasis on personal right

Dimitri met often with Eric and also with Kay and José, both of whom sometimes came to informal meetings of Trustees and also to practitioner sessions which Eric was holding – all of which helped to aid communication and share experience.

Eric Bates continued to promote GRASP within education and in 1992 established a GRASP Comino Centre in the Institute for Education at Warwick University with the support of John Tomlinson CBE, the Director of Education. This Centre was mainly concerned with using GRASP in the mentoring of student teachers and in 1995 was requested to review the work of Dudley, the oldest GRASP Comino Centre, and show the effectiveness of the process. In 1993 Rita Marsh, who had been director of the Liverpool Education Authority's curriculum, accreditation and development unit, worked with Eric to set up the fifth GRASP Comino Centre in the University of Liverpool's Department of Education.

## The death of Dimitri and changes in the Foundation

Still working on his vision of expanding GRASP into education, Dimitri died of a heart attack on 27 September 1988 while on holiday in Athens. On 5 June 1989 an evening of special tribute to Dimitri was held at the RSA with 100 invited guests from all walks of life and levels of society. Twelve of his closest colleagues and friends paid their special tribute at a most moving occasion which illustrated how he had changed the lives of many people.

George Bennett, an ex-Dexion employee who had acted as Administrator for the Foundation for many years, died shortly after Dimitri; he was succeeded by Alan Roberts who was previously Company Secretary of Dexion Ltd. George Thompson, one of the original Trustees, resigned in 1989 for health reasons and John Tomlinson, who was Director of Education at Warwick University and Chairman of the RSA's Trustees and subsequently helped to establish the General Teaching Council of England, was appointed in his place. Norman Bailey was now the only remaining founder Trustee.

While wishing to remain true to Dimitri's main interests, the Trustees decided to review the current priorities of the nation and two consultations were held at the Ashridge Management Centre in Hertfordshire in May 1990 and December 1991. The participants had been invited from a wide variety of occupations; many were Chairmen of the newly established Training and Enterprise Councils. The message from these events was that the Foundation should progress its good work, but its purpose seemed to lack clarity because it was seen as pursuing two widely different objectives and there appeared to be little connection between the GRASP process and the work stemming from the consultations at St George's House.

Dimitri had in fact made a connection in his 1968 address at the London School of Economics seminar when he pointed out that there was a need for industry to attract self-motivated young people who were good at getting results, and asked how this was to be done if the image of industry and commerce was so poor. The Trustees acknowledged the Ashridge feedback and, in 1994, they restated the vision of the Foundation:

'The vision of the Comino Foundation is that people in Britain should live more fulfilled lives within a prosperous and responsible society'.

The Foundation contributes to the realisation of this vision by supporting activities which:

- encourage and enable groups and individuals to motivate and empower themselves and to develop progressively their potential for the benefit of themselves and others;
- encourage a culture which affirms and celebrates both achievement and responsible practice in industry, commerce and public life.

The Ashridge meetings were also used to identify potential new Trustees who would share Dimitri's vision and carry his work forward into the future. Anthony Darbyshire, one of the Ashridge participants, was at that time a consultant working on the introduction of the Investors in People initiative and had also been founder of a private group of companies, a creative contributor to consultations at St George's House, and a founder Chairman of a Training and Enterprise Council. Anthony was appointed a Trustee in December 1993.

The twenty fifth anniversary of the formation of the Comino Foundation was celebrated on 14 November 1996 with an evening at the RSA. This was also the tenth year of GRASP in education. 130 guests heard Eric Bates describe the GRASP process and how the five Comino Centres had demonstrated its success, and John Tomlinson went on to speak about its future potential. It was clear that the application of GRASP through the Centres had demonstrated that children can easily adopt its principles and improve their motivation to learn. The Centres had also demonstrated that GRASP can improve the ability of teachers to structure their lessons and contribute to improving management of the school itself. Whilst the Foundation cannot claim full credit for a more purposeful approach to education than that which other institutions such as Ofsted have initiated, there seems little doubt that it assisted in the process.

#### The Foundation for Manufacturing & Industry

The final consultation chaired by Lord Caldecote took place in June 1991. It returned to Kenneth Adams's 1980 vision of a body wholly devoted to fostering the case for industry and commerce, which he had further developed in his 26 June 1990

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lecture marking the end of his ten-year Comino Foundation Fellowship at the RSA. During this time both Kenneth and the Foundation had believed that the RSA had been brought back to the original vision of its founders in 1754 by communicating the excitement, value, and immense contribution of manufacturing and in encouraging the practical arts which lie behind the success of agriculture, extraction, manufacture, transport, and commerce.

The drive and enthusiasm created by Industry Year had been maintained by the RSA through the Industry Matters initiative, and by others through numerous industry/education partnerships such as the Schools' Career Industry Partnership (SCIP) – a joint venture between the CBI and the TUC - and the Centre for Education and Industry at Warwick University. At this time Kenneth realised that there would always be multiple and competing objectives within the RSA and he saw the need for a new national institution single-mindedly devoted to the advancement of manufacturing and commerce. It should be an independent body bringing together those who lead in all areas of national life to enable them to study the factors which contribute to successful manufacturing and the issues which are obstacles to success.

The effectiveness of people working in industry will always be frustrated unless they are supported by those who work in Government, finance, education and the media. Kenneth saw this support as essential and he set out to encourage the creation of a new institution. He made the case for this as the central theme of a consultation in June 1992 and the idea captured the imagination of the forthcoming Lord Mayor of London, Francis McWilliams, a distinguished engineer. At the launch of the annual Lord Mayor's appeal at the Guildhall on 18 November 1992 Kenneth presented the case for the new Foundation for Manufacturing and Industry (FM&I) and Francis McWilliams promised that 50% of the funds raised by his appeal would be devoted to its establishment.

The Comino Foundation provided financial backing to enable a steering group to be set up for the proposed F&MI, comprising Norman Bailey, Chairman of the Comino Trustees; Walter Eltis, Principal Economic Advisor at the DTI; Jenny Kirkpatrick, business consultant; Douglas McWilliams, Chief Economic Advisor to the CBI and son of the Lord Mayor; and Mark Radcliffe, Chairman of the Manufacturing Forum of the CBI, itself an outcome of Industry Year. With Kenneth's assiduous networking and the Lord Mayor's active participation, the Steering Group won the agreement of the CBI, the IOD, the Engineering Employers Federation and the RSA itself to proceed. The three main political parties and Robin Butler, Head of the Civil Service and Secretary to the Cabinet, also expressed support. The latter was something of a conversion as, during the period that Margaret Thatcher was Prime Minister, he had shared her view that manufacturing was of little consequence and that the UK's economy could flourish due to the rapid expansion of financial and other service industries.

With the abandonment by the UK of its membership of the European Exchange Rate Mechanism in September 1992 it was finally realised in all political and Government circles that a strong, independent currency needed a strong economy – which itself would depend on a successful, exporting manufacturing sector. All political parties agreed that the UK would need advanced technical excellence in order to compete in a world where developing countries have relatively low labour rates,.

Assisted by a series of luncheons given by the now knighted Sir Francis McWilliams, the support of many leading figures from all walks of life in Britain was obtained. The Steering Group with the help of Alan Roberts, the Comino Foundation's Administrator, obtained charitable status for the new Foundation. The objects for which the Charity was established were: 'to advance the education of the public in factors which affect the success of industry (in particular, manufacturing industry in the UK) by conducting or commissioning research into economics, technology, political sciences, employment and training, industrial relations and social trends and such other relevant fields of study as the Trustees determine and by disseminating the useful results of such research'.

The members of the Steering Group became the first Trustees of the FM&I with Alan Roberts as Secretary, and a strong Advisory Council was created with members from leading positions in politics, the Civil Service, education, broadcasting, trade unions, finance and industry. There was active chairmanship from Sir Trevor Holdsworth, then Chairman of National Power and a past-President of the CBI, and Elizabeth Amos was recruited from the CBI to become the Director. Offices were established with the room for the Council being named the Adams Room. The formal launch of the FM&I took place at the Mansion House on the 27 September 1993 before a large gathering with the Lord Mayor in the Chair; the principal speaker was Timothy Sainsbury who was standing in for Michael Heseltine, President of the Board of Trade. With the Lord Mayor's backing, the whole operation had taken just fifteen months to establish following the consultation at St George's House in June 1992.

The initial funding from the Lord Mayors' Appeal Fund provided £200,000; the Comino Foundation gave £50,000 a year for three years in addition to bearing the setting up costs; and corporate, charitable and individual contributions from a number of sources quickly provided a further £200,000 a year. With a small permanent staff led by Elizabeth Amos, this combination of funding enabled the FM&I to mount a very successful research programme as well as holding numerous discussion evenings which stimulated much useful discussion and attracted press publicity.

By the mid 1990's Kenneth and the Trustees of the Comino Foundation considered that the task set in 1975 had been largely completed. Attitudes to industry had been transformed in twenty years. The realisation that 'wealth must be created before it can be distributed in welfare, health provision, infrastructure and other public services' had become much better recognised compared to a complete lack of such

understanding in the early 1970s. The Industry and Parliament Trust now ensured increased understanding of industry in Parliament and Whitehall. Of the causes identified in the November 1975 consultation, ignorance of the way in which Britain earns its living and disappointment with industrial performance had both been greatly reduced and education and industry had become closer than ever before.

The Foundation now believed that further change could be left to those institutions and organisations which had become committed to re-building industry in Britain, which included those provided by industry itself, for example the National Manufacturing Council of the CBI, the Industrial Society<sup>14</sup> and the FM&I.

# Maintaining momentum on manufacturing issues

Although the FM&I was able to organise and manage a successful and wellattended programme on important manufacturing issues of the day, funding from industry had become increasingly difficult to maintain.

Professor Michael Gregory, one of the regular attendees at the events organised by the FM&I and Head of the Manufacture and Management Division in the Engineering Department of Cambridge University, identified that the work carried out by the FM&I could extend the work of his Department. Discussions were initiated in late 1996 to merge the philosophy and activities of the FM&I with the University's Manufacturing and Management Division and form the Institute for Manufacturing <sup>15</sup> (IfM). The merger took place in November 1997.

From its inception in 1998 the IfM has pursued an innovative approach to manufacturing. Its interests have developed to encompass a broad range of activities – from understanding markets and technologies, through process and product design, to production and supply chain operations – all within an economics and policy context, and remaining under Mike Gregory's leadership to this day. The IfM's research is carried out within seven main centres, each concentrating on a particular theme and covering the full spectrum of manufacturing issues. These centres work with industry to develop practical techniques, and findings are disseminated through courses, conferences, workbooks and direct services to industry.

The IfM integrates education, research and practice at every level, with each area of activity feeding into and informing the others. It provides undergraduate and postgraduate courses that integrate management, business and interpersonal skills with engineering and manufacturing knowledge and practice. By 2010 the IfM was supporting a large number of PhD students, and had also expanded to employ over 300 staff including researchers and moved to the purpose-built Alan Reece building which was opened in 2009. Professor Sir Mike Gregory was awarded a knighthood in the 2011 New Years Honours for services to technology.

Dimitri would have been pleased that his vision of improving attitudes to manufacturing led to the establishment of the FM&I and to the subsequent substantive

work by the IfM to understand and – at a practical level - improve the factors, including the skill base, which help determine the success of manufacturing in the UK.

# Ethics and values in the workplace and society

Kenneth Adams recognised that one of the reasons for disenchantment with industry was the ways in which companies operated. Although attitudes to industry had changed significantly due to the work by Kenneth and others, there appeared to have been no perceptible change in ethics and values, nor an accepted framework for them in industry and commerce. As Kenneth's consultation programme reached its conclusion in the mid 1990s ethics and values in industry remained an important issue.

In February 1996 a consultation for mid-year high flyers in industry expressed concern about the ethics and values which seemed to be adopted by industry leaders. Independently, Dr Nicholas Tate and Sir Ron Dearing of the Schools Curriculum and Assessment Authority set up the National Forum for Values in Education and the Community and circulated a discussion document on its findings. The Comino Foundation considered what role it should play in this debate.

In 1997 the IoD annual conference highlighted the need for the Institute to consider the role of ethics and values in business, and the Honour Underpins Business (HUB) project was initiated. The Foundation provided a grant which helped support a HUB IoD conference and a National Opinion Poll survey on the perceived importance of ethics and values in business. This survey confirmed that ethics and values had an important role to play in the effective management of companies. Subsequently the IoD ensured that events which focused on promoting ethical standards and values in business were included on a regular basis in IoD member programmes. In 1999 the IOD, under Tim Melville-Ross its Director General, of the IoD, initiated the Chartered Director qualification which included, as part of its Code of Conduct, a requirement to adhere to ethical principles in business. 2011 will see the number of directors receiving this qualification exceed one thousand.

Meanwhile, in 1990, the Institute for Global Ethics (IGE)<sup>16</sup> had been founded in the US by the American journalist and writer, Dr Rushworth Kidder, and a separate UK Trust was set up in 1995 as a registered charity with Sheila Bloom as Chief Executive. The core mission of both the Institute and of IGE UK<sup>17</sup> is 'to promote ethical behaviour in individuals, and cultures of integrity in institutions and nations, through research, public discourse and practical action'. Early activity by IGE UK coincided with the setting up of the Committee on Standards in Public Life in October 1994 under Lord Nolan. This committee debated with IGE UK whether the terms 'values', 'ethics' and 'morals' could be used in public discourse. It emerged that there was some similarity between the 'Seven Principles of Public Life' on which his committee was basing its work, and the ethical values commonly agreed upon by participants in IGE's Ethical

Fitness<sup>®</sup> Seminars. These values reflect five core concepts – honesty, respect, fairness, compassion and responsibility - all of which Dimitri saw as important.

Then in 1996 the Comino Foundation sponsored a gathering for ethics practitioners at which it was introduced to IGE UK. The main outcome of this consultation was the setting up of the RSA Forum for Ethics in the Workplace, which the Foundation part-supported. Anna Comino-James and Sheila Bloom served for four years on the Forum's Steering Group at the RSA and helped plan a regular series of topics and speakers. This Forum was later transferred to the Institute for Business Ethics<sup>18</sup>.

The Foundation invited IGE UK to convene a consultation at St George's House in May 1998 on 'Common Values for the 21<sup>st</sup> Century'. A Trustee from the Aberdeen-based Gordon Cook Foundation<sup>19</sup> participated and discussions identified that the two foundations had similar objectives regarding ethics and values and should explore possibilities for joint working with IGE UK. The outcome was the IGE UK 'Personal Responsibility' project which was jointly funded by the two foundations.

The vision of the Personal Responsibility project was 'a society in which people throughout the United Kingdom feel encouraged and empowered to exercise personal responsibility as individuals and in their local and wider communities'. Initially the project explored links between values, rights and responsibilities as the UK's Human Rights Act was being introduced in October 2000. One outcome was the formal launch in 2003 of the Impetus Awards programme which ran from 2002 to 2008 and enabled schools and youth groups across the UK to encourage young people to share ethical values, human rights and responsibilities in their local communities. This work produced some excellent practice by young people which was showcased across the UK with individual country events and six annual celebrations in London. The Impetus Awards programme received support funding from the Ministry of Justice, the Welsh Assembly Government, the Gordon Cook Foundation and the Comino Foundation.

Between 2002 and 2004, the focus of the Personal Responsibility project turned to Responsibility and the Media. This issue arose from a consultation in May 2002 on Parenting and Responsibility that IGE UK had convened with the support of the Comino Foundation. This consultation involved the National Family and Parenting Institute<sup>20</sup> and discussions highlighted the lack of responsible reporting in the media. IGE UK subsequently convened several events in London with contributions from numerous media organisations which were concerned with the responsibility of the media in a democratic society, plus a further series of consultations at St George's House which resulted in the relaunch of the PressWise Trust as MediaWise<sup>21</sup>. This media ethics charity operates on the principle that press freedom is a responsibility exercised by journalists on behalf of the public who should be informed when the media publish inaccurate information. A further media outcome, again supported by

the Foundation, was the consolidation of the European Dart Centre for Journalism and Trauma<sup>22</sup> in the UK.

Towards the end of 2004, with support from the Comino and Gordon Cook Foundations, IGE UK convened three consultations on 'Responsibility and Civic Leaders' which brought together the past and present Mayors from thirty-two London Boroughs. These consultations explored the role of the Civic Mayor and the potential for civic leaders to promote a culture of increased responsibility in their local communities. The report of these consultations was published in conjunction with the London Mayors Association which, as a result of the consultation series, introduced annual induction training for incoming Civic Mayors in London and distributed the booklet at a number of Local Government Association conferences.

In March 2007 IGE UK convened a consultation, with continued support from the two Foundations, to look at the impact of a prison education programme called 'Ethics and Choices' that IGE had introduced into the North Carolina Penal Service in the late 1990s. The consultation brought together representatives of the Scottish and English prison services and resulted in a number of recommendations which included piloting Ethics and Choices seminars in Scotland and England to build a broader understanding of the potential for the programme in the UK. Three pilot seminars took place in 2008 for staff at HMP Ford in West Sussex, at the RSA and at the Scottish Prison Service College (SPSC) in Polmont, with two further seminars in 2009 and 2010 being evaluated by the Centre for Mental Health, London. These findings were subsequently published in the 'Public Health' journal, with a related article, both recommending that the approach addressed a gap in training (for all disciplines) and indeed in current working practice. Reflecting on decision-making was seen as crucial to ethical practice in such a challenging setting.

In 2008 IGE UK and the Comino Centres collaborated to explore values and promote personal responsibility in the contexts in which the Comino Centres were working. For the Liverpool Comino Centre this meant work with staff from Local Solutions, a social enterprise organisation in Merseyside, and with staff from Homeground, a residence for young homeless people; this partnership continues. For the Sheffield Centre it meant work on the ethics of science education; work was developed with members of the Primary Science Editorial Board, which resulted in articles focused on Science and Ethics in schools. With support from the Wigan Centre, teachers engaged in Classrooms in Companies project explored the themes of values and personal responsibility in the teaching of controversial issues linked to citizenship.

As a continuation of the Personal Responsibilities project, the Comino and Gordon Cook Foundations funded IGE UK in 2009 to convene two consultations to consider ways of counteracting the negative image so often used by the media when featuring young people. The first consultation brought together young people from across the UK, youth organisations and youth-led policy think tanks, together with journalists and media organisations. Participants agreed that this constant negative

portrayal within some media was having a negative effect on the confidence, attitudes and behaviour of young people and proposed the establishment of a Youth Media Charter and a Youth Press Complaints Gateway. The second consultation created a shared dialogue between the media and young people and explored how the negative portrayal of young people could be challenged. The direct outcome of this consultation was the formation of the vibrant, and on-going, Youth Media Network<sup>23</sup>.



Delegates to a consultation organised by IGE UK at St George's House, Windsor Castle

Also in 2009, that year's class of Graduates of the Harvard Business School created a movement known as the MBA Oath<sup>24</sup>. Their objective was to address some of the causes of that year's economic crisis by creating a community of MBAs who would adopt a high standard for ethical and profess-ional behaviour in management. By 2011 the Oath had been embraced by over 4,750 MBAs from 300 institutions throughout the world. Funded by the Comino and Gordon Cook Foundations, and in collaboration with the Institute of Business Ethics and the Strathclyde Business School which was leading the deployment of the MBA Oath in the UK, in December 2010 IGE UK convened a consultation to explore how the range of courses in UK business schools might be modified to provide new business leaders with the tools to become strong ethical leaders in the future. This consultation identified six major issues needing to be addressed in raising the profile of ethics in UK business schools. These issues were further explored at a follow-up consultation in June 2011 which resulted in a series of specific recommendations for subsequent implementation.

The personal responsibility programme was seen to be largely complete by the end of 2010. Although the Foundation can only claim some of the credit, there has been much more political emphasis on personal responsibility than existed when the project began in 1988 – as demonstrated by the way in which, following the widespread UK street rioting in August 2011, national leaders concentrated on the reasons for the decline in personal responsibility.

#### Changes in the Comino Foundation

As part of its work concerning ethics and values in the workplace, the Comino Foundation provided funding to the Police Federation to hold consultations to improve the police complaints system. It also funded two consultations on 'Ethics and Duty' for the Police Ethics Network which resulted in the Government of the day deciding to implement all the issues raised. These included the establishment of the Independent Police Complaints Commission<sup>25</sup>, which has subsequently proved essential in monitoring the public accountability of the police. Before the Police Ethics Network was disbanded, its presence being no longer necessary due to the changes it had effected, the relationship between the Foundation and the Network continued for a further two years. John Slater, who was Joint Chairman and founder of the Network and known to the Comino Foundation Trustees through this work, was appointed a Trustee in December 2000 following the death of Norman Bailey in June that year.

Norman Bailey had joined Dimitri at Krisson in 1932 and had been Chairman of Dexion as well as Chairman of the Comino Foundation since its inception. Although Dimitri's daughter, Anna, and Eric Duckworth, the longest serving Trustee, were able to provide some continuity, the death of Norman was a major loss as the Foundation could no longer benefit from his in-depth knowledge of Dimitri's beliefs and intentions.

Following Norman's death the Trustees decided that there should be a legacy to recognise his lifelong contribution to Dimitri's work. A Bailey-Comino scholarship programme was established to help postgraduates develop their research work in the Engineering Department of the Open University and the first six scholarships were awarded in 2002. As their testimonies have described, these scholarships have helped many mature students to achieve their objectives.

In 2002 Simon Bailey, Norman's son and a partner in Huthwaite International which specialises in improving business performance, and Mike Tomlinson, who had just retired as Head of Ofsted, the Government's School Inspection Service, were both appointed Trustees and John Tomlinson retired in 2003. Chairmanship of the Trustees rotated on an annual basis until June 2004 when John Slater became Chairman on a semi-permanent basis subject to three year re-election.

# Improving support for disadvantaged young people

The Comino Foundation seeks to support the development of potential in all young people and has often focused its support on those who are in some way disadvantaged.

In 1996 the Foundation became aware of PACE<sup>26</sup> (Positive Achievement inspired by the principles of Conductive Education), a new centre which Heather Last was establishing to improve the development of children with motor disorders such as cerebral palsy. Conductive education is a continuous learning process (as opposed to

a treatment or therapy) which recognises the person as a whole and helps them develop their intellectual, emotional, social and physical abilities, and in which individuals have to be active and discover their own solutions to the many problems of daily living. The PACE Centre, however, is uniquely trans-disciplinary in combining conductive education with occupational therapy, physiotherapy and formal education.

The PACE 'educating for whole life' programmes are designed around an indepth knowledge of each child and it is the responsibility of a Team Leader to differentiate between the needs of each child in a group. When it is appropriate for a child to be taught either individually or in a smaller group, the structure of their learning day is designed to accommodate this. A partnership is always created between child, parent and staff members in order to facilitate the learning process, and parent training and support is an essential part of the curriculum as it enables parents to promote their child's learning when not at the Centre. Volunteers are also trained within the groups as they have a crucial role in helping and supporting families within their local community.

Eric Bates recognised that the PACE Centre was an organisation in which GRASP principles were being applied. It was also evident that, for the PACE Centre to succeed and broaden its influence, Heather Last would need to develop effective training programmes for staff and parents in the theory and application of conductive education. Funding from the Foundation for this development work started in 1997 and continued through to 2009. Alongside funding from other charitable institutions, this enabled the Pace Centre to expand progressively and to become recognised as a leading institution for conductive education. Following recognition Buckinghamshire Local Education Authority in 2005, PACE was able to raise funds to move to new, and larger, purpose-built premises.



A young pupil with Heather Last at the PACE Centre

The 2009 Ofsted report states that The PACE Centre is an outstanding school that provides an excellent quality of education for all pupils, and parents are overwhelmingly positive about the school. The integration of education, therapy and care ensures that pupils' complex needs are consistently addressed. Pupils make impressive progress in their academic, physical and communication skills, and also in their personal development. Much of the school's work is conducted in groups, in which pupils learn to relate to one another and, where possible, to take the initiative. Pupils empathise with one another and show each other consideration and real respect and friendship.

Following her retirement in December 2011 Heather Last's excellent PACE legacy will continue to reach a much wider and international constituency due to the development of the training programmes funded by the Comino Foundation.

Meanwhile, the Comino Centre based in Liverpool John Moores University had identified that there was a need to provide a better process of resettling young homeless people - a necessary social service in cities where there are high levels of social deprivation - and began a long-standing association with the Homeground<sup>27</sup> residential hostel which is part of Local Solutions, a charity and social enterprise delivering a range of services in Merseyside. In 1999, the Comino Centre funded a two-year initial pilot project to provide a Resettlement Worker who would improve the management of resettlement for the young people going through the hostel.

The pilot project demonstrated that this placement significantly improved the success rate for resettlement and the Foundation directly funded this worker from 2001. The work done in this post was refined over a period of time, with the University evaluating the value of the placement in 2006. David Ellis, who manages Homeground, subsequently organised two conferences to promote the value of Resettlement Workers and by 2008 their use had become recognised as national best practice in resettlement hostels for young people.

Homeground, in refining the work of the Resettlement Worker, expanded their client group to include young people who had been released from custody. In many cases these young people suffer from 'deep exclusion' and face isolation. Because of the lack of co-ordination of social services they also face multi-dimensional problems that entrap them in a cycle of disadvantage. To help address these problems The J Paul Getty Jnr Charitable Trust funded another pilot to employ an Intense Support Mentor whose role was to customize and manage packages of support to enable young people in 'deep exclusion' to take control of their lives and successfully re-engage with society. The second pilot was also successful and demand for this service increased. The Comino Foundation agreed funding in 2010 to enable an additional Intense Support Mentor to be provided in place of the Resettlement Worker whose job had become a mainstream occupation.

Homeground is now seen as leading the way in developing best practice in the resettlement of young people. David Ellis, on behalf of Homeground, presented the hostel's practice to Government representatives in the House of Lords in April 2009.

#### Comino Centre development

In the early 1990s Eric Bates, as Education Fellow, continued to monitor the work of the existing Comino GRASP Centres in Dudley LEA, Liverpool University, Warwick University, Sheffield Hallam University and the then King Alfred's College, Winchester. Although initially their work focussed on using GRASP approaches in the wide range of education communities with which they were associated, the Trustees later decided it would be more appropriate to call them Comino Centres as the more recent Centres have evolved from the network of relationships which the Foundation develops across the full range of its work.

In the middle of the 1990s the Trustees wished to introduce others to the principles and value of GRASP and Eric was asked to lead a GRASP dissemination project. There were several experimental initiatives including an initial grant to Worcestershire Education Partnership for work with Special Needs Teachers and the establishment in 1999 of a Comino Centre in Wigan Borough Partnership.

The focus of the Wigan Comino Centre, in association with the Wigan Education Business Partnership, was Classrooms in Companies<sup>28</sup>. The Centre, led by Pat Walters as Director, helped to develop these innovative classrooms over ten years with Comino funding. The first Classroom in Company was sponsored by Martland Mill Newspaper Company with ten more being established over the period with sponsorship from organisations representing utilities, sport, farming, local government, construction and the environment.

Each Classroom in Company offered a unique learning experience and embraced a range of learning styles. The activities were designed to develop skills linked to creativity, enterprise and employability, and were delivered by staff from both industry and education who were working together for the benefit of those in the 3-19 age range. When these classrooms were fully established, 15,000 young people were visiting them on an annual basis – each visit typically lasting for one day - and teachers were trained in GRASP principles to enhance the learning experience.

Over the years, Classrooms in Company became the test-bed for numerous educational initiatives that influenced both local and national policies. They won several awards, and in May 2010 Her Majesty the Queen opened a Classroom sponsored by Leigh Centurions Rugby League Football Club. Funding from the Comino Foundation ceased once it was felt that the Classrooms in Companies approach was firmly established in Wigan.



HM the Queen being introduced to John Slater, Chairman of the Comino Foundation, during her visit to Classrooms in Company

When Rita Marsh retired in 1997 as Director of the Comino Centre at Liverpool University, the Centre was moved to Liverpool John Moores Univer-sity<sup>29</sup> under the direction of Professor Les Bell. Subsequently Ros Phillips was appointed as Director and led the Centre until her retirement in 2008, when she was succeeded by Professor Diana Burton. The new Centre concentrated on supporting initiatives which addressed social disadvantage in the Liverpool area where Homeground was the initial project. Comino Centre funding from the Foundation was used for numerous other projects which focussed on local community issues.

The Comino Foundation was impressed, for instance, by the success of a project funded by the Gordon Cook Foundation in which the TAN Dance Company<sup>30</sup> had worked with Swansea school children, using dance to help them make the transition from primary to secondary school. The Liverpool Comino Centre was excited by the idea of using dance as a way of helping young people build their confidence and capacity for self expression. This was the trigger for an experimental partnership in which the Centre brought together Local Solutions and an undergraduate community dance company from Liverpool John Moores University. Young people with a range of disadvantages were given the chance to be involved in an art and dance project in which, over several months, they explored and expressed their personal identity. Over the weeks of preparation, culminating in a live performance, it became clear that both the students and Local Solutions clients were learning from each other and acquired self-confidence by the experience of working together through dance.

This experiment was so successful that it has become established as an annual project involving other Liverpool agencies which work with disadvantaged young people. By 2010, the numbers taking part had increased to around 100, supported by

20 students from the University. As well as Homeground, other organisations involved were the Liverpool Light House Project and the Liverpool Pupil Referral Unit both of which support excluded young people from various schools in the area – and also Save the Family, a supported housing and homeless project;

When, as part of their strategic review in 2011, the Comino Foundation Trustees decided to cease their their funding of the Liverpool Comino Centre, they made this decision knowing that some links between Liverpool John Moores University and its local community had been firmly established. They also recognized that the University and the Centre was fully committed to continuing their community engagement programme which might lead to requests for further funding.

Ian Cleland had led the successful work of the Comino Centre in Dudley until he resigned in 1999, but the work continued under the leadership of Joyce Hodgetts until 2001 when the Black Country Schools Improvement Partnership was established. In the period leading to the launch of the Black Country Challenge in 2008, the work of the Dudley Comino Centre was carried through into the schools improvement initiatives of the new Black Country Partnership; Elizabeth Dix became the Centre Director, working in close collaboration with Professor Sir Geoff Hampton.

The work to introduce GRASP into the mentoring process in initial teacher training, as carried out by the Comino Centre in the Institute for Education in Warwick University, was supported by the Comino Foundation until 2003. By this time student teacher mentoring was well established so the work of the Centre was seen to be complete and funding ceased.

In 2002 Eric Bates retired as active Education Fellow but continued to be involved in an honorary capacity and José Chambers was asked to co-ordinate the work in the Comino Centres. When Eric also resigned his honorary role in 2004, the Trustees appointed José as Development Fellow to support all the Foundation's grantees and liaise between them and the Trustees.

The Comino Centre at King Alfred's College continued, unfunded, with its emphasis being on GRASP-related approaches to organisational learning. This approach contributed to the College achieving university status in 2005 when it became the University of Winchester. By this time José had achieved a national profile in the higher education sector - she served as Chair of the UK Organisational Development in Higher Education Group (ODHE)<sup>31</sup> and in 2007 was funded by the Higher Education Funding Council for England to direct a project on the enhancement of organisational development capability in the English universities. Then in the 2011 Queen's Birthday Honours she was later awarded an MBE for services to higher education. Since José's retirement from her post as Assistant Vice Chancellor at the University, the Winchester Comino Centre has been based in the University's Centre for Real World Learning<sup>32</sup> directed by Professors Bill Lucas and Guy Claxton. The focus of the Centre - 'how people learn to accomplish real things in their everyday

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*lives* – *learning to do things, not just learning about things.*' is particularly appropriate to the aims of the Foundation Comino.

The work carried out by the Comino Centre in the Centre for Science Education at Sheffield Hallam University had always been innovative. Under Professor Bill Harrison, the CSE believed that a vital part of inspiring children and young people to take an interest in STEM (Science, Technology, Engineering and Mathematics)<sup>33</sup> subjects - and in particular science - is to ensure that what they study is lively, engaging and relevant to their lives. GRASP principles were built into many CSE initiatives to increase their effectiveness and the Centre's core activity has constantly been to push forward the boundaries of curriculum development by encouraging and helping teachers across the UK to develop their capacity to inspire their students in STEM subjects.

Bill retired as Director of the Comino Centre in 2004 and was succeeded by Dr Lynne Bianchi who leads the development of personal capabilities through mainstream curricula. In 2006 the Comino Foundation provided funding for the CSE to develop Smart Science materials<sup>34</sup> for pupils in Primary Schools. This work encourages and supports teachers to help pupils apply the personal capabilities of teamwork, self management, creativity, problem solving and communication to science learning activities.

Bill Harrison had a vision that STEM pupils in Secondary Schools should be encouraged to develop leadership skills, which would enhance their value to subsequent employers, and in 2004 he proposed a Young Leaders Active Citizenship Award which then became the STEM Leadership Award. An award, however, is not as valuable as a qualification and in 2007 the Foundation contributed to the funding needed to develop a qualification in STEM leadership. This enabled the units for the qualification to be defined, with CSE arranging for a qualification provider (Edexcel) to promote the STEM Leadership Qualification<sup>35</sup> at BTEC levels 1 and 2. This qualification was launched in September 2008 with several centres being established to train teachers to deliver the qualification in an ever-increasing number of secondary schools and academies.

# Further support for the development of education

As an educational charity the Comino Foundation has drawn on the expertise of a number of key people closely involved in aspects of education. Dr Eric Bates, Head of the Industry/Education Unit at the DTI, became a Trustee in 1986; following his retirement he became Education Fellow for the Foundation in 1987. Professor John Tomlinson, who was Director of Education at Warwick University and subsequently helped to establish the General Teaching Council of England, became a Trustee in 1989. Professor José Chambers, the Director of the Comino Centre at King Alfred's College in 1987 and Assistant Vice Chancellor when it became the University of Winchester, was appointed Development Fellow in 2004. Mike Tomlinson, formerly

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Chief Inspector for Schools and Head of Ofsted, became a trustee in 2002 prior to managing various education projects for Government, becoming Chair of the Governors of the RSA Academy, and a leading figure behind the move to establish twenty-four University Technical Colleges<sup>36</sup> by 2015. This continuity of experience has enabled the Trustees not only to monitor the work of the Comino Centres but also to support a number of further initiatives in education.

At the suggestion of John Tomlinson who was then Chairman of the emerging General Teaching Council, the Foundation made a grant in 1997 to assist the Council to produce a statement of ethical principles for the teaching profession. Later, some years prior to his retirement from the Foundation, John had emphasised the importance of parenting in education, and a relationship between the Comino Foundation and the National Family and Parenting Institute (NFPI), later named the Family & Parenting Institute<sup>37</sup>, was established in 2000. Having already stimulated the RSA's Council to take an interest in parenting and the nurture of children, in 2001 John persuaded the Foundation to fund the employment of information officers in the NFPI and the Parenting Education & Support Forum (PESF)<sup>38</sup> to promote the findings of their work. This project also stimulated IGE UK to organise a consultation on responsibility and parenting. Although direct Comino Foundation funding of NFPI and PESF ceased in 2003, both the Liverpool and Wigan Comino Centres initiated projects in 2005 on parenting and education in their local communities.

In 2003 Mike Tomlinson, who was Chairman of the Learning Trust for Education in Hackney, became aware that Robin Wight, President of the communications agency The Engine Group, was forming the Ideas Foundation<sup>39</sup> in Hackney together with Heather MacRae, a Careers Service manager, and David Holloway OBE, a Creative Education project manager who later became Chief Executive. The key purpose of setting up the Ideas Foundation was to spot and develop creativity in young people by means of delivering pilot creative education projects and engagement within the creative industries. Mike was supportive of this work because a key driver was to provide opportunities for young people from disadvantaged London boroughs such as Hackney.

These young people could experience work in a creative industry; demonstrate their creative capability in that work setting by participating in projects covering a range of disciplines including advertising, digital media, architecture, product design, fashion, film and music; and have the chance of establishing a relationship with a mentor who could continue to offer guidance and advice. The initiative was seen as a way of extending the horizons of those whose range of career ambitions might be severely limited to work settings and occupations with which they were familiar. The Comino Foundation was convinced that there was potential value in this innovative education initiative and provided funding to support work with two Hackney schools.

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Young people working on an Ideas Foundation fashion project

Since 2003 the Comino Foundation has organised an annual two-day event to bring together the Trustees, Comino Fellows, Comino Centre Directors and other grantees. Grantees are invited to share with the whole group what they are finding most exciting about their current Comino-funded work and to outline their vision for the future. These events generate many ideas and have been the start of a number of new initiatives – they enable grantees to build close links, identify areas of common interest and explore possibilities for working together creatively. Grantees report that what the network provides for them is a unique feature of the Foundation's approach to its work and to those who are being funded to take that work forward.



Delegates attending the 2010 Comino network gathering

These annual gatherings have proved particularly useful to the grantees. David Holloway, for example, identified opportunities for developing the Ideas Foundation programmes with schools associated with the Comino Centres. In addition to continued funding to extend the work with Hackney schools, and because of the particular vibrancy of the creative industries in Manchester and Liverpool, the Foundation provided further funding to establish a relationship with schools associated with the Wigan and Liverpool Comino Centres. A high point in 2009 was when the young people participating in the Wigan/Ideas Foundation project met with Andy Burnham, then a Minister and Member of Parliament for Leigh.

The Ideas Foundation is now well established both in London and the North West. It has formed relationships with many creative companies and other organisations, all of which support projects in six Ideas Foundation Schools plus other schools around the country, and has also set up an on-line project called 'I am Creative' where students can work on a professional brief supported by a creative mentor. The work of the Ideas Foundation, supported by funding from a number of other charities, is taking place in an ever increasing number of colleges and higher education establishments. By 2011 over 2,000 young people have benefited from their initiatives with over 800 completing the full scholarship programme. The Comino Foundation is now partner in the Ideas Foundation Schools initiative in Greater Manchester where the Ideas Foundation and the Sheffield Comino Centre work together in three schools, contributing to the core competence-based practice and development embodied in the GRASP methodology.

### Grants for specific projects

Over the years the Comino Foundation has made a number of grants for specific projects in education, many of which have led to a long term relationship with the Foundation. All these grants have helped young people develop their skills and enhance their opportunities:

- 2000: a grant to Antidote to help support their emotional literacy campaign;
- 2001: a grant to Promote to fund setting up a research project to evaluate the Essential Skills Award; and also grants to the National Family and Parenting Institute and the Parenting Education & Support Forum to employ information officers to promote the findings of their work;
- 2005: a grant to the Red Balloon Learner Centre Group<sup>40</sup> to support the establishment of centres for the recovery of bullied children;
- 2006: a grant to Performing Arts Lab<sup>41</sup> to fund work to develop innovative thinking and creative practice across the arts, science and education;
- 2007: a grant to the Association for Science Education<sup>42</sup> to fund travel for talented students to attend a conference in Sydney, Australia;

- 2009: a scholarship grant to the Royal Academy of Engineering; and also a grant to Derby High School in Bury to introduce the STEM Leadership Qualification supported by GRASP principles;
- 2010: a grant to the National Association for Gifted Children to facilitate their reorganisation after their annual funding was severely reduced due to a change in Government policy;
- Over a period of years, an annual grant to the Potential Trust, to fund professional retreats for those whose work is in line with the Trust's overall aim and, more recently, also to enable children of high potential to participate in intensive and challenging events and activities

Mary Crowley OBE, formerly Chief Executive of the Parenting Education & Support Forum (PESF) and of Parenting UK from 1999 to 2007 remembers the timing of the initial funding by the Comino Foundation in 2001 and believes that this contribution was significant in three ways:

- The funding provided timely support at a crucial moment in the development of public policy.
- The Foundation subsequently engaged with a small innovative project in Wigan, helping with access to local contacts through the Wigan Comino Centre, and funded the evaluation of that project through the Liverpool Centre.
- PESF which later became Parenting UK had on-going access to the Comino network, which proved to be a lasting source of fresh ideas and encouragement.

Mary said: 'At that stage in our growth this grant was very significant - it helped us raise our profile and, more importantly, helped us to bring the issue of parenting education more effectively to the attention of the public, politicians and policy-makers. At last parenting became a mainstream priority for Government – resulting, in 2007, in the establishment of the National Academy for Parenting Practitioners.'

The Academy was set up with a three-year funding grant from the Government to train and support the practitioners that parents turn to for advice, training and information about parenting skills. It aimed to make sure that the work of parenting practitioners is based on research evidence of what really works. When this funding ended in April 2010, the Academy's training functions were taken over by the Children's Workforce Development Council and its research functions by King's College London.

Meanwhile, in 2006, the Foundation had funded the evaluation of a Parenting UK Community Consultants project in Wigan, 'Giving Parents a Voice'. The project itself was funded by the Esmeé Fairbairn Foundation to pilot a new approach aiming to engage hard-to-reach parents in parenting education programmes. It developed a

model for increasing local parent/carer involvement by recruiting and training parents from the immediate locality as parenting practitioners or 'community consultants' who were more readily trusted by the 'hard-to-reach' as sources of advice and guidance. The evaluation report, indicating that the model could be implemented flexibly and was cost effective, was launched in the House of Commons by Beverley Hughes, the then Children's Minister. It is still used to bring the model to the attention of other regions across the UK.

Mary Crowley recalls that when she became President of the International Federation for Parenting Education the colleagues she had met through the Comino network were most helpful in thinking of ideas for how that role could be developed: 'Because I had met people informally and maintained my links with them through Comino gatherings, I had no hesitation in contacting them. I could trust them to be aware of the issues, but from a different perspective. I knew they would help me see things with fresh eyes and provide some innovative suggestions.'

#### Concern for environment issues

In 2002 Kenneth Adams and Eric Duckworth published a paper in Ingenia, the house magazine of the Royal Academy of Engineers, under the title 'Towards Sustainable Growth'. This paper recognised that the world's obsession with material goods could not be sustained without irreparable damage to the environment and the exhaustion of natural resources. As a part solution the paper proposed that industry and commerce should seek to change the aspirations of people by expanding their service markets in the areas of social, intellectual, physical and aesthetic delight and thereby cause consumer spending on material goods to be reduced. In 2006 the Comino Foundation commissioned the Centre for Economics and Business Research (cebr)<sup>43</sup> to assess the impact of changes in consumer behaviour on the demand for natural resources. Their report identified that a 10% switch in consumption from consumer goods to services would significantly reduce demand for resources and reduce greenhouse gas emissions. Despite a programme of press releases the concept of a beneficial change from 'retail therapy' to 'culture therapy' aroused little interest. At this time the research work of the International Panel on Climate Change (IPCC) was indicating that the 21st century would see an apocalyptic 6°C rise in global temperatures if current emissions of greenhouse gases were not significantly reduced. It was clear to the Trustees that people in Britain would not be able to lead more fulfilled lives within a prosperous and responsible society unless they understood that they needed to live their lives in a more sustainable way. Anthony Darbyshire had been devoting time to promoting various initiatives concerning the environment and in 2007 he relinquished his formal responsibilities as a Trustee to become Environment Fellow for the Foundation.

Initially Anthony believed the IPCC forecasts which were detailed in their 2007 4<sup>th</sup> Assessment Report<sup>44</sup> and he researched several papers on environment issues such

as inevitable growth in the 21<sup>st</sup> Century, emission free energy generation, and climate change in the Polar Regions. These were published on the Foundation's web site and resulted in a request from The Parliament and Scientific Committee for Anthony to organise and lead a study tour of UK renewable energy initiatives for representatives of the Chinese Peoples Political Consultative Conference.

The Trustees were also concerned that young people should be helped to understand environment issues and funding was given to the Sheffield Comino Centre to produce six action-orientated climate change modules for pupils, supported by teaching notes for teachers. These learning materials were published on the upd8<sup>45</sup> teacher support website and by the end of 2010 there had been 20,000 downloads.

In response to an article which identified that a number of climate scientists believed that the science of climate change was not settled and that the apocalyptic forecasts by the IPCC might not occur, Anthony researched the science papers on the issues impacting on global warming and reached the conclusion that the science of climate change was still at an early stage of development and that greenhouse gas emissions might have far less impact on global warming than that forecast by the IPCC. He changed his views in 2009 to a neutral stance based on peer-reviewed scientific papers and the Trustees considered that, based on this conclusion, the Comino Foundation should press for a balanced approach to climate change issues.

This approach was justified by the 2010 Climategate scandal, the 2010 review of the Royal Society position<sup>46</sup> on climate change, the establishment of the Global Warming Policy Foundation<sup>47</sup>, and an increasing flow of scientific papers illustrating the complexity of climate science. Anthony promoted this approach through networking, additional papers and by several events in schools. By the end of 2010 the Trustees considered that a more balanced approach to climate change had become widely accepted and that the Foundation's work in this area was complete.

# Further partnership with the RSA

Having decided to support an Academy in 2006, the RSA became the lead sponsor in helping to transform Willlingsworth High School, Tipton, into the RSA Academy<sup>48</sup> which opened in September 2008 – the first school to have adopted the RSA's Opening Minds curriculum<sup>49</sup> with all year groups. The new Principal, Mick Gernon, who had held a wide range of successful leadership roles in secondary education, was determined to ensure that the motto of the RSA Academy - Transforming Learning, Transforming Lives – could become a reality. The Comino Foundation made a grant towards establishing the new Academy and Sir Mike Tomlinson, who had been awarded a knighthood in the 2005 New Years Honours for services to education, was appointed Chairman of the Governors.

Tipton in the West Midlands is an area of relatively high unemployment with many students coming from less privileged backgrounds. Well aware of this, Mick introduced a range of innovative approaches to staff development to help build a positive ethos and culture and to enable staff to use the Opening Minds curriculum to help develop students' broader competences by relating these to both subject content and real-life contexts. To support this, the Academy also initiated an enrichment programme as part of its normal timetable to help students to participate in a wider range of learning experiences designed to raise aspirations, expectations and opportunities for leadership. The intention of the Academy is to ensure that young people are capable of making positive, constructive and informed contributions to their community, and for them and the Academy to be catalysts for transformation of that community.



HRH the Duke of Edinburgh at the opening of the RSA Academy with Anna Comino-James and John Slater in the background

The development of the RSA Academy under Mick Gernon's leadership impressed the Foundation's Trustees who consequently decided to fund the opening of a Comino Centre in the Academy which would be associated with Warwick University. Initially Mick acted as Centre Director, using funding from the Foundation to build the initiatives for improving the ambition and wider skills of students. Alex Triance was appointed Director in April 2011.

By 2010, the academic results for the RSA Academy had substantially improved and the Academy was now rated to be in the top 1% of secondary schools based on its GCSE point scores. In addition, the first cohort of sixth form students completed their studies with all those applying for university gaining admission to their chosen University; all but one of these students were the first member of their family to go to a university. Another success was in June 2011 when the Academy's students came first

in the finals of the Urban Debate National Championships<sup>50</sup>, making the RSA Academy the first non-London school to win.

The Comino Foundation is proud to have been able to support the RSA Academy's outstanding achievement in demonstrating that it is possible to transform learning and transform the lives of young people.

# Looking to the future

Simon Bailey's retirement as a Trustee in 2009 prompted the Foundation to seek new Trustees and in 2010 it appointed David Perry who had helped to establish the Winchester Comino Centre before becoming Director of the Royal College of Art's Schools Technology Project. Also appointed in 2010 was James Westhead, Director of External Relations at Teach First and formerly Education and Social Affairs Correspondent for the BBC. Teach First is an independent charity with a mission to address educational disadvantage by recruiting high achieving graduates and placing them in schools where there are challenging circumstances; their brief is to help children from all backgrounds receive the excellent education to which they are entitled.

In 2010 Alan Roberts retired as Administrator with Diana le Clercq being appointed to this role.

Sir Mike Tomlinson retired as a Trustee in July 2011 but indicated that he wished to remain in contact with the Foundation so that his extensive knowledge and expertise in the field of education would remain accessible.

As the Comino Foundation celebrates the 40<sup>th</sup> anniversary of its formation it continues to support initiatives that help people in Britain live more fulfilled lives within a prosperous and responsible society. The recent financial crisis has meant that many aspects of education and social responsibility are being rev-iewed and the Foundation is determined to play its part in helping to effect positive change, particularly change that will improve opportunities for young people.

Like many entrepreneurs before him Dimitri's lasting legacy will not be the businesses he created. Instead it will be the Charitable Foundation he established and the impact that the Foundation has made – and will continue to make – on people in Britain.

# Annotated links in the text

No.	Page	Organisation link in the internet
1	16	Dexion Gmbh - http://www.dexion.com/
2	16	Dexion (Australia) Pty Ltd - <a href="http://www.dexion.com.au/">http://www.dexion.com.au/</a>
3	19	Edward de bono - <a href="http://www.edwdebono.com/">http://www.edwdebono.com/</a>
4	19	St George's House, Windsor Castle - <a href="http://www.stgeorges-windsor.org/">http://www.stgeorges-windsor.org/</a>
5	21	The Industry Parliament Trust - <a href="http://www.ipt.org.uk/">http://www.ipt.org.uk/</a>
6	21	The Royal Society of Arts for the Encouragement of Arts, Manufacturing and Commerce - <a href="http://www.rsa.org.uk/">http://www.rsa.org.uk/</a>
7	22	'English Culture and the Decline of the Industrial Spirit 1850-1980' by Martin Wiener – Cambridge University Press 1981
8	23	Young Enterprise - <a href="http://www.young-enterprise.org.uk/">http://www.young-enterprise.org.uk/</a>
9	23	Chatham House - <a href="http://www.chathamhouse.org/">http://www.chathamhouse.org/</a>
10	25	SCSST, now The Council for Science and Technology - <a href="http://www.bis.gov.uk/cst">http://www.bis.gov.uk/cst</a>
11	25	The National Association for Gifted Children - <a href="http://www.nagcbritain.org.uk/">http://www.nagcbritain.org.uk/</a>
12	26	The University of Winchester - <a href="http://www.winchester.ac.uk/Pages/home.aspx">http://www.winchester.ac.uk/Pages/home.aspx</a>
13	26	Sheffield Hallam University – Centre for Science Education - <a href="http://www.shu.ac.uk/research/cse/">http://www.shu.ac.uk/research/cse/</a>
14	31	The Industrial Society – now The Work Foundation - <a href="http://www.theworkfoundation.com/">http://www.theworkfoundation.com/</a>
15	31	The Institute for Manufacturing – Cambridge University - <a href="http://www.ifm.eng.cam.ac.uk/">http://www.ifm.eng.cam.ac.uk/</a>
16	32	The Institute of Global Ethics - <a href="http://www.globalethics.org/">http://www.globalethics.org/</a>
17	32	The Institute of Global Ethics UK - <a href="http://www.globalethics.org.uk/cms/">http://www.globalethics.org.uk/cms/</a>
18	33	The Institute for Business Ethics - <a href="http://www.ibe.org.uk/">http://www.ibe.org.uk/</a>
19	33	The Gordon Cook Foundation - <a href="http://www.gordoncookfoundation.org.uk/">http://www.gordoncookfoundation.org.uk/</a>
20	33	The Parenting and Family Institute - <a href="http://www.familyandparenting.org/">http://www.familyandparenting.org/</a>
21	33	The MediaWise Trust - <a href="http://www.mediawise.org.uk">http://www.mediawise.org.uk</a>
22	33	The European Dart Centre for Journalism and Trauma - <a href="http://dartcenter.org/europe">http://dartcenter.org/europe</a>
23	35	Youth Media Network - <a href="http://www.youthmedianetwork.com/">http://www.youthmedianetwork.com/</a>
24	35	The MBA Oath - <a href="http://mbaoath.org/">http://mbaoath.org/</a>
25	36	The Independent Police Complaints Commission - <a href="http://en.wikipedia.org/wiki/Independent_Police_Complaints_Commission">http://en.wikipedia.org/wiki/Independent_Police_Complaints_Commission</a>
26	36	The PACE Centre - <a href="http://www.thepacecentre.org/">http://www.thepacecentre.org/</a>
27	38	Local Solutions – Homeground - http://www.localsolutions.org.uk/projects/Homelessness/homeground/
28	39	Classrooms in Companies – Wigan Business Education Partnership - <a href="http://www.wiganschoolsonline.net/smi/docs/Classrooms">http://www.wiganschoolsonline.net/smi/docs/Classrooms</a> in Companies.pdf
29	40	Liverpool John Moores University – <a href="http://ljmu.ac.uk">http://ljmu.ac.uk</a>

30	40	TAN Dance - <a href="http://www.tandance.org/">http://www.tandance.org/</a>
31	41	Organisational Development in Higher Education (ODHE) -
ונ	41	http://www.lfhe.ac.uk/networks/od/odgroup.html
32	41	The University of Winchester – Centre for Lifelong Learning
		http://www.winchester.ac.uk/aboutus/lifelonglearning/Pages/CentreforLifelongLe
		arning.aspx STEM (Science, Technology, Engineering and Mathematics) -
33	42	http://www.nationalstemcentre.org.uk/
34	42	Sheffield Hallam University – Centre for Science Education – Personal Capabilities
		http://www.personalcapabilities.co.uk/smartscience/
35	42	STEM Leadership Qualification -
		http://www.edexcel.com/quals/workskills/stem/Pages/default.aspx
36	43	University Technical Colleges - <a href="http://www.utcolleges.org/">http://www.utcolleges.org/</a>
37	43	The National Family and Parenting Institute -
		http://www.familyandparenting.org/
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39	43	The Ideas Foundation - <a href="http://www.ideasfoundation.org.uk/">http://www.ideasfoundation.org.uk/</a>
40	46	The Red Balloon Learner Centres - <a href="http://www.redballoonlearner.co.uk/">http://www.redballoonlearner.co.uk/</a>
41	46	Performing Arts Labs - <a href="http://www.pallabs.org/">http://www.pallabs.org/</a>
42	46	The Association for Science Education - <a href="http://www.ase.org.uk">http://www.ase.org.uk</a>
43	47	The Centre for Economics and Business Research - <a href="http://www.cebr.com/">http://www.cebr.com/</a>
44	47	The Intergovernmental Panel on Climate Change Reports -
		http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml
45	48	Science upd8 - http://www.upd8.org.uk/
46	48	The Royal Society – Climate Change - <a href="http://royalsociety.org/Policy-reports-and-">http://royalsociety.org/Policy-reports-and-</a>
47	40	statements-climate-change/
47	48	The Global Warming Policy Foundation - <a href="http://www.thegwpf.org/">http://www.thegwpf.org/</a>
48	48	The RSA Academy - http://www.rsaacademy.net/
49	48	The RSA Opening Minds curriculum - <a href="http://www.rsaopeningminds.org.uk/">http://www.rsaopeningminds.org.uk/</a>
50	50	Urban Debate National Championships - <a href="http://www.urbandebate.org/">http://www.urbandebate.org/</a>